

CONSIDERATION OF SPECIFIC FEDERAL LAWS

40 CFR §144.4

Carbon TerraVault 1 LLC (CTV) has considered Federal Laws, including the Wild and Scenic Rivers Act (WSRA), National Historic Preservation Act (NHPA), Endangered Species Act (ESA), Coastal Zone Management Act (CZMA), and the Fish and Wildlife Conservation Act (FWCA). Description for these acts and applicability to the Elk Hills !-A2 storage project is described below.

Wild and Scenic Rivers Act (WSR Act)

The Wild and Scenic Rivers Act (WSR Act) of 1968 (Public Law 90-542; 16 U.S.C. 1271 *et seq.*) was enacted by Congress to preserve certain rivers with outstanding natural, cultural, and recreational values in a free-flowing condition for the enjoyment of present and future generations. The WSR Act is notable for safeguarding the special character of these rivers, while also recognizing the potential for their appropriate use and development. It encourages river management that crosses political boundaries and promotes public participation in developing goals for river protection.

The National Wild and Scenic Rivers System (NWSRS) was created by the WSR Act and is managed by the National Park Service and the U.S. Forest Service. Rivers may be designated by Congress, or if certain requirements are met, they may be designated by the Secretary of the Interior. Designated segments need not include the entire river and may include tributaries. Each river is administered by either a federal or state agency. Section 2(b) of the WSR Act creates three classifications of protected rivers, which are defined as follows:

- “Wild River Areas” are those rivers or sections of rivers that are free of impoundments and generally inaccessible except by trail, with watersheds or shorelines essentially primitive and waters unpolluted. These represent vestiges of America.
- “Scenic River Areas” are those rivers or sections of rivers that are free of impoundments, with shorelines or watersheds still largely primitive and shorelines largely undeveloped, but accessible in places by roads.
- “Recreational River Areas” are those rivers or sections of rivers that are readily accessible by road or railroad, that may have some development along their shorelines, and that may have undergone some impoundment or diversion in the past.

Regardless of the classification, each river in the National System is administered with the goal of protecting and enhancing the values for which it was designated.

Based on a review of the NWSRS National Park Service (NPS) Wild and Scenic River Management GIS dataset, there are no designated wild, scenic, or recreational river areas in the

Project site. The closest designated wild, scenic, or recreational river is approximately 38 miles SW of the proposed project site (Sisquoc River) and 54 miles S of the project site (Sespe Creek).

National Historic Preservation Act (NHPA) – *National Historic Preservation Act (NHPA) §106*

In 1998, the Department of Energy (DOE) sold its interests in the former Naval Petroleum Reserve No. 1 (NPR-1) to Occidental of Elk Hills, Inc. (OEHI) – now California Resources Corporation (CRC). As part of its compliance with the National Historic Preservation Act (NHPA), DOE entered into a Programmatic Agreement (PA) with the California State Historic Preservation Officer (SHPO) and the Advisory Council of Historic Preservation (ACHP) regarding the resolution of adverse effects to historic properties from the removal of NPR-1 from federal administration by DOE. Appendix 2 to the PA is the “Cultural Resources Management Plan, Naval Petroleum Reserve No. 1, Elk Hills, Kern County, California” (CRMP), completed in 1998. That CRMP defines the measures DOE would (and did) take to implement the terms of the PA, taking into account the effects of the undertaking (i.e., the sale of NPR-1) in accordance with Sections 106 and 110 of the NHPA. The DOE, SHPO and ACHP are signatories to the PA.

The original CRMP applied to the management and treatment of three discovery well locations, Hay Well No. 1, Hay Well No. 5 and Hay Well No. 7, in addition to eight prehistoric archaeological sites or components, CA-KER-3079/H, KER-3080, KER-3082, KER-3085, KER3168, KER-5373/H, KER-5392, and KER-5404. These sites had been determined by DOE and SHPO as National Register of Historic Places (NRHP) eligible properties. The three wells were determined NRHP-eligible per eligibility criterion (a) and all the prehistoric components of each archaeological site are considered significant per criterion (d) in 36 CFR 60.4. Management of the historic properties is carried out consistent with the original CRMP. Relative to the three wells, DOE conducted focused archival research and then produced a booklet regarding the history of the oil field. The booklet was produced and distributed per Section 2.2 of the CRMP. For the eight archaeological sites, DOE undertook and completed limited archaeological data recovery at each site. The data recovery effort was reported in Culleton et al. (2005) “Cultural Response to Environmental Change in the Buena Vista Basin: Archaeological Data Recovery at Eight Sites on the Former Naval Petroleum Reserve No. 1 (Elk Hills), Kern County, California.”

Prior to the proposed CCS project undertaking, CRC will retain a qualified archaeologist to conduct an archival records search, as well as pedestrian surveys, and to initiate Native American tribal consultation as necessary. The archival records search will be conducted at the California State University, Bakersfield, Southern San Joaquin Valley Archaeological Information Center (AIC), by AIC staff to determine: (i) if prehistoric or historical archaeological sites has previously been recorded within the project study area; (ii) if the project area has been systematically surveyed by archaeologists prior to the initiation of this field study; and/or (iii) whether the region of the project is known to contain archaeological sites and to thereby be archaeologically sensitive. Additionally, a record search of the Native American Heritage Commission (NAHC) *Sacred Lands File* will be conducted to ascertain whether traditional cultural places or cultural landscapes had been identified within the proposed project site. Any historic findings will be evaluated to determine significance and a plan to avoid and mitigate any adverse impacts to archaeological resources will be prepared by the qualified archaeologist for the Project as applicable.

Endangered Species Act (ESA) – (16 U.S.C. 1531 *et seq.*), enacted in 1973, is administered by the USFWS and the National Oceanic and Atmospheric Administration Fisheries Service (formerly National Marine Fisheries Service). The purpose of the ESA is to conserve and recover endangered and threatened species, as well as the ecosystems upon which they depend. ESA requires all federal agencies to protect listed species and preserve their habitats. Section 4 of ESA sets forth a process for listing species as endangered or threatened, for designating critical habitat for listed species, and for preparing recovery plans for listed species. Section 7 requires federal agencies to consult with the USFWS or National Oceanic and Atmospheric Administration Fisheries Service to ensure their actions do not jeopardize listed species. Section 9 prohibits the “take” of a listed species. Section 10 provides a means whereby a nonfederal action with the potential to result in the incidental take of a listed species while carrying out an otherwise lawful activity may be authorized under a permit. Section 11 sets forth enforcement and penalty provisions. Under the ESA, “take” of listed wildlife species is prohibited, unless take authorization is first obtained from the USFWS. “Take” is broadly defined under the ESA and means to harass, harm, hunt, shoot, wound, kill, trap, capture, or collect, or attempt to engage in any such conduct.

Elk Hills Oil and Gas operations have been covered under multiple Section 7 permits since 1983 (as a former DOE facility) and is currently the subject of a draft Section 10a permit. In addition, the project area is covered by a Section 2081 Incidental Take permit (ITP 2081-2014-019-04) from the California Department of Fish and Wildlife (CDFW). CRC is unique among oil companies in that we have three professional biologists on staff and a specialized environmental permit team. This group works closely with State and Federal agencies on NEPA and CEQA permitting and compliance for all our operations across the state.

As part of project planning, CRC conducted a preliminary search of the USFWS Information for Planning and Consultation (IPaC), website, a tool that streamlines the USFWS environmental review process. Based on initial review of the IPaC, no designated critical habitat is present in the project site. A total of 11 federally listed species may be present and/or adversely impacted by the proposed project. A species list obtained from the USFWS IPaC for listed species and critical habitats that may be present in or adversely affected by the proposed project is attached as reference (Figure ENV-1).

As the project planning progresses, CRC will obtain an official species list from the USFWS and resume review of the project’s effects on listed species pursuant to the ESA as part of the overall regulatory review. Potential impacts on resources managed by the USFWS will be evaluated and applicable conservation measures will be designed to avoid or minimize effects to listed species, CRC will also engage with a third-party environmental consultant to assist with biological pre-activity surveys, biological assessment/report preparation, and biological and mitigation compliance monitoring as necessary.

Coastal Zone Management Act (CZMA) – As per 16 U.S.C. § 1453. Definitions

(1) The term "coastal zone" means the coastal waters (including the lands therein and thereunder) and the adjacent shorelands (including the waters therein and thereunder), strongly influenced by each other and in proximity to the shorelines of the several coastal states, and includes islands, transitional and intertidal areas, salt marshes, wetlands, and beaches. The zone extends inland from the shorelines only to the extent necessary to control shorelands, the uses of which have a direct and significant impact on the coastal waters, and to control those geographical areas which are likely to be affected by or vulnerable to sea level rise.

The closest designated coastal zone is located approximately 60 miles South of the proposed project site (Summerland) and 67 miles West of the project site (Grover Beach).

Fish and Wildlife Conservation Act (FWCA)

The Fish and Wildlife Conservation Act (FWCA) of 1980 (16 U.S.C. §§ 2901 *et seq.*) declares that fish and wildlife are of ecological, educational, esthetic, cultural, recreational, economic, and scientific value to the Nation. The Act acknowledges that historically, fish and wildlife conservation programs have focused on more recreationally and commercially important species within a particular ecosystem, without provisions for the conservation and management of nongame fish and wildlife. The purposes of this Act are to encourage all federal departments and agencies to utilize their statutory and administrative authority, to the maximum extent practicable and consistent with each agency's statutory responsibilities, and to conserve and to promote conservation of non-game fish and wildlife and their habitats. The FWCA defines "non-game fish and wildlife" as wild vertebrate animals in an unconfined state, that are not ordinarily taken for sport, fur, or food, not listed as endangered or threatened species, and not marine mammals within the context of the Marine Mammal Protection Act. Another purpose is to provide financial and technical assistance to the states for the development, revision, and implementation of conservation plans and programs for nongame fish and wildlife.

There are currently no Habitat Conservation Plans (HCP), Natural Community Conservation Plans (NCCP), or other approved conservation plans covering the proposed Project site or non-game fish and wildlife.

Figure ENV-1

IPaC resource list

This report is an automatically generated list of species and other resources such as critical habitat (collectively referred to as *trust resources*) under the U.S. Fish and Wildlife Service's (USFWS) jurisdiction that are known or expected to be on or near the project area referenced below. The list may also include trust resources that occur outside of the project area, but that could potentially be directly or indirectly affected by activities in the project area. However, determining the likelihood and extent of effects a project may have on trust resources typically requires gathering additional site-specific (e.g., vegetation/species surveys) and project-specific (e.g., magnitude and timing of proposed activities) information.

Below is a summary of the project information you provided and contact information for the USFWS office(s) with jurisdiction in the defined project area. Please read the introduction to each section that follows (Endangered Species, Migratory Birds, USFWS Facilities, and NWI Wetlands) for additional information applicable to the trust resources addressed in that section.

Location

Kern County, California



Local office

Sacramento Fish And Wildlife Office

☎ (916) 414-6600

📠 (916) 414-6713

Federal Building
2800 Cottage Way, Room W-2605
Sacramento, CA 95825-1846

Endangered species

This resource list is for informational purposes only and does not constitute an analysis of project level impacts.

The primary information used to generate this list is the known or expected range of each species. Additional areas of influence (AOI) for species are also considered. An AOI includes areas outside of the species range if the species could be indirectly affected by activities in that area (e.g., placing a dam upstream of a fish population even if that fish does not occur at the dam site, may indirectly impact the species by reducing or eliminating water flow downstream). Because species can move, and site conditions can change, the species on this list are not guaranteed to be found on or near the project area. To fully determine any potential effects to species, additional site-specific and project-specific information is often required.

Section 7 of the Endangered Species Act **requires** Federal agencies to "request of the Secretary information whether any species which is listed or proposed to be listed may be present in the area of such proposed action" for any project that is conducted, permitted, funded, or licensed by any Federal agency. A letter from the local office and a species list which fulfills this requirement can **only** be obtained by requesting an official species list from either the Regulatory Review section in IPaC (see directions below) or from the local field office directly.

For project evaluations that require USFWS concurrence/review, please return to the IPaC website and request an official species list by doing the following:

1. Draw the project location and click CONTINUE.
2. Click DEFINE PROJECT.
3. Log in (if directed to do so).
4. Provide a name and description for your project.
5. Click REQUEST SPECIES LIST.

Listed species¹ and their critical habitats are managed by the [Ecological Services Program](#) of the U.S. Fish and Wildlife Service (USFWS) and the fisheries division of the National Oceanic and Atmospheric Administration (NOAA Fisheries²).

Species and critical habitats under the sole responsibility of NOAA Fisheries are **not** shown on this list. Please contact [NOAA Fisheries](#) for [species under their jurisdiction](#).

1. Species listed under the [Endangered Species Act](#) are threatened or endangered; IPaC also shows species that are candidates, or proposed, for listing. See the [listing status page](#) for more information. IPaC only shows species that are regulated by USFWS (see FAQ).
2. [NOAA Fisheries](#), also known as the National Marine Fisheries Service (NMFS), is an office of the National Oceanic and Atmospheric Administration within the Department of Commerce.

The following species are potentially affected by activities in this location:

Mammals

NAME	STATUS
Buena Vista Lake Ornate Shrew <i>Sorex ornatus relictus</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/1610	Endangered
Giant Kangaroo Rat <i>Dipodomys ingens</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/6051	Endangered
San Joaquin Kit Fox <i>Vulpes macrotis mutica</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/2873	Endangered
Tipton Kangaroo Rat <i>Dipodomys nitratoides nitratoides</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/7247	Endangered

Reptiles

NAME	STATUS
Blunt-nosed Leopard Lizard <i>Gambelia silus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/625	Endangered
Giant Garter Snake <i>Thamnophis gigas</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/4482	Threatened

Amphibians

NAME	STATUS
California Red-legged Frog <i>Rana draytonii</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/2891	Threatened

Fishes

NAME	STATUS
Delta Smelt <i>Hypomesus transpacificus</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/321	Threatened

Insects

NAME	STATUS
Monarch Butterfly <i>Danaus plexippus</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/9743	Candidate

Crustaceans

NAME	STATUS
Vernal Pool Fairy Shrimp <i>Branchinecta lynchi</i> Wherever found There is final critical habitat for this species. The location of the critical habitat is not available. https://ecos.fws.gov/ecp/species/498	Threatened

Flowering Plants

NAME	STATUS
Kern Mallow <i>Eremalche kernensis</i> Wherever found No critical habitat has been designated for this species. https://ecos.fws.gov/ecp/species/1731	Endangered

Critical habitats

Potential effects to critical habitat(s) in this location must be analyzed along with the endangered species themselves.

THERE ARE NO CRITICAL HABITATS AT THIS LOCATION.

Migratory birds

Certain birds are protected under the Migratory Bird Treaty Act¹ and the Bald and Golden Eagle Protection Act².

Any person or organization who plans or conducts activities that may result in impacts to migratory birds, eagles, and their habitats should follow appropriate regulations and consider implementing appropriate conservation measures, as described [below](#).

1. The [Migratory Birds Treaty Act](#) of 1918.
2. The [Bald and Golden Eagle Protection Act](#) of 1940.

Additional information can be found using the following links:

- Birds of Conservation Concern <http://www.fws.gov/birds/management/managed-species/birds-of-conservation-concern.php>
- Measures for avoiding and minimizing impacts to birds <http://www.fws.gov/birds/management/project-assessment-tools-and-guidance/conservation-measures.php>
- Nationwide conservation measures for birds <http://www.fws.gov/migratorybirds/pdf/management/nationwidestandardconservationmeasures.pdf>

MIGRATORY BIRD INFORMATION IS NOT AVAILABLE AT THIS TIME

Tell me more about conservation measures I can implement to avoid or minimize impacts to migratory birds.

[Nationwide Conservation Measures](#) describes measures that can help avoid and minimize impacts to all birds at any location year round. Implementation of these measures is particularly important when birds are most likely to occur in the project area. When birds may be breeding in the area, identifying the locations of any active nests and avoiding their destruction is a very helpful impact minimization measure. To see when birds are most likely to occur and be breeding in your project area, view the Probability of Presence Summary. [Additional measures](#) or [permits](#) may be advisable depending on the type of activity you are conducting and the type of infrastructure or bird species present on your project site.

What does IPaC use to generate the migratory birds potentially occurring in my specified location?

The Migratory Bird Resource List is comprised of USFWS [Birds of Conservation Concern \(BCC\)](#) and other species that may warrant special attention in your project location.

The migratory bird list generated for your project is derived from data provided by the [Avian Knowledge Network \(AKN\)](#). The AKN data is based on a growing collection of [survey, banding, and citizen science datasets](#) and is queried and filtered to return a list of those birds reported as occurring in the 10km grid cell(s) which your project intersects, and that have been identified as warranting special attention because they are a BCC species in that area, an eagle ([Eagle Act](#) requirements may apply), or a species that has a particular vulnerability to offshore activities or development.

Again, the Migratory Bird Resource list includes only a subset of birds that may occur in your project area. It is not representative of all birds that may occur in your project area. To get a list of all birds potentially present in your project area, please visit the [AKN Phenology Tool](#).

What does IPaC use to generate the probability of presence graphs for the migratory birds potentially occurring in my specified location?

The probability of presence graphs associated with your migratory bird list are based on data provided by the [Avian Knowledge Network \(AKN\)](#). This data is derived from a growing collection of [survey, banding, and citizen science datasets](#).

Probability of presence data is continuously being updated as new and better information becomes available. To learn more about how the probability of presence graphs are produced and how to interpret them, go the Probability of Presence Summary and then click on the "Tell me about these graphs" link.

How do I know if a bird is breeding, wintering, migrating or present year-round in my project area?

To see what part of a particular bird's range your project area falls within (i.e. breeding, wintering, migrating or year-round), you may refer to the following resources: [The Cornell Lab of Ornithology All About Birds Bird Guide](#), or (if you are unsuccessful in locating the bird of interest there), the [Cornell Lab of Ornithology Neotropical Birds guide](#). If a bird on your migratory bird species list has a breeding season associated with it, if that bird does occur in your project area, there may be nests present at some point within the timeframe specified. If "Breeds elsewhere" is indicated, then the bird likely does not breed in your project area.

What are the levels of concern for migratory birds?

Migratory birds delivered through IPaC fall into the following distinct categories of concern:

1. "BCC Rangewide" birds are [Birds of Conservation Concern](#) (BCC) that are of concern throughout their range anywhere within the USA (including Hawaii, the Pacific Islands, Puerto Rico, and the Virgin Islands);
2. "BCC - BCR" birds are BCCs that are of concern only in particular Bird Conservation Regions (BCRs) in the continental USA; and
3. "Non-BCC - Vulnerable" birds are not BCC species in your project area, but appear on your list either because of the [Eagle Act](#) requirements (for eagles) or (for non-eagles) potential susceptibilities in offshore areas from certain types of development or activities (e.g. offshore energy development or longline fishing).

Although it is important to try to avoid and minimize impacts to all birds, efforts should be made, in particular, to avoid and minimize impacts to the birds on this list, especially eagles and BCC species of rangewide concern. For more information on conservation measures you can implement to help avoid and minimize migratory bird impacts and requirements for eagles, please see the FAQs for these topics.

Details about birds that are potentially affected by offshore projects

For additional details about the relative occurrence and abundance of both individual bird species and groups of bird species within your project area off the Atlantic Coast, please visit the [Northeast Ocean Data Portal](#). The Portal also offers data and information about other taxa besides birds that may be helpful to you in your project review. Alternately, you may download the bird model results files underlying the portal maps through the [NOAA NCCOS Integrative Statistical Modeling and Predictive Mapping of Marine Bird Distributions and Abundance on the Atlantic Outer Continental Shelf](#) project webpage.

Bird tracking data can also provide additional details about occurrence and habitat use throughout the year, including migration. Models relying on survey data may not include this information. For additional information on marine bird tracking data, see the [Diving Bird Study](#) and the [nanotag studies](#) or contact [Caleb Spiegel](#) or [Pam Loring](#).

What if I have eagles on my list?

If your project has the potential to disturb or kill eagles, you may need to [obtain a permit](#) to avoid violating the Eagle Act should such impacts occur.

Proper Interpretation and Use of Your Migratory Bird Report

The migratory bird list generated is not a list of all birds in your project area, only a subset of birds of priority concern. To learn more about how your list is generated, and see options for identifying what other birds may be in your project area, please see the FAQ "What does IPaC use to generate the migratory birds potentially occurring in my specified location". Please be aware this report provides the "probability of presence" of birds within the 10 km grid cell(s) that overlap your project; not your exact project footprint. On the graphs provided, please also look carefully at the survey effort (indicated by the black vertical bar) and for the existence of the "no data" indicator (a red horizontal bar). A high survey effort is the key component. If the survey effort is high, then the probability of presence score can be viewed as more dependable. In contrast, a low survey effort bar or no data bar means a lack of data and, therefore, a lack of certainty about presence of the species. This list is not perfect; it is simply a starting point for identifying what birds of concern have the potential to be in your project area, when they might be there, and if they might be breeding (which means nests might be present). The list helps you know what to look for to confirm presence, and helps guide you in knowing when to implement conservation measures to avoid or minimize potential impacts from your project activities, should presence be confirmed. To learn more about conservation measures, visit the FAQ "Tell me about conservation measures I can implement to avoid or minimize impacts to migratory birds" at the bottom of your migratory bird trust resources page.

Facilities

National Wildlife Refuge lands

Any activity proposed on lands managed by the [National Wildlife Refuge](#) system must undergo a 'Compatibility Determination' conducted by the Refuge. Please contact the individual Refuges to discuss any questions or concerns.

THERE ARE NO REFUGE LANDS AT THIS LOCATION.

Fish hatcheries

THERE ARE NO FISH HATCHERIES AT THIS LOCATION.

Wetlands in the National Wetlands Inventory

Impacts to [NWI wetlands](#) and other aquatic habitats may be subject to regulation under Section 404 of the Clean Water Act, or other State/Federal statutes.

For more information please contact the Regulatory Program of the local [U.S. Army Corps of Engineers District](#).

WETLAND INFORMATION IS NOT AVAILABLE AT THIS TIME

This can happen when the National Wetlands Inventory (NWI) map service is unavailable, or for very large projects that intersect many wetland areas. Try again, or visit the [NWI map](#) to view wetlands at this location.

Data limitations

The Service's objective of mapping wetlands and deepwater habitats is to produce reconnaissance level information on the location, type and size of these resources. The maps are prepared from the analysis of high altitude imagery. Wetlands are identified based on vegetation, visible hydrology and geography. A margin of error is inherent in the use of imagery; thus, detailed on-the-ground inspection of any particular site may result in revision of the wetland boundaries or classification established through image analysis.

The accuracy of image interpretation depends on the quality of the imagery, the experience of the image analysts, the amount and quality of the collateral data and the amount of ground truth verification work conducted. Metadata should be consulted to determine the date of the source imagery used and any mapping problems.

Wetlands or other mapped features may have changed since the date of the imagery or field work. There may be occasional differences in polygon boundaries or classifications between the information depicted on the map and the actual conditions on site.

Data exclusions

Certain wetland habitats are excluded from the National mapping program because of the limitations of aerial imagery as the primary data source used to detect wetlands. These habitats include seagrasses or submerged aquatic vegetation that are found in the intertidal and subtidal zones of estuaries and nearshore coastal waters. Some deepwater reef communities (coral or tubercled worm reefs) have also been excluded from the inventory. These habitats, because of their depth, go undetected by aerial imagery.

Data precautions

Federal, state, and local regulatory agencies with jurisdiction over wetlands may define and describe wetlands in a different manner than that used in this inventory. There is no attempt, in either the design or products of this inventory, to define the limits of proprietary jurisdiction of any Federal, state, or local government or to establish the geographical scope of the regulatory programs of government agencies. Persons intending to engage in activities involving modifications within or adjacent to wetland areas should seek the advice of appropriate federal, state, or local agencies concerning specified agency regulatory programs and proprietary jurisdictions that may affect such activities.